

## **Work Zone Safety Task Force Videoconference**

**9:00 am – 12:00 pm**

**May 18, 2010**

*Attendance: Jeff Carpenter, Chris Christopher, Brian Walsh, Frank Newboles, Marty Weed, Steve Haapala, Alice Fiman, John Himmel, Don Peterson, Vicky Thorniley, Phil Fordyce, Brian Dobbins, Kirk Berg, Chris Tams, Rick Gifford, Tom Lenberg, Mike Frucci and guest speakers Dave Jones and Mike Dornfeld. Missing were Pasco Bakotich, Amy Revis, and Mike O'Neil.*

### Welcome

Brian Walsh, facilitator, welcomed the group and had each person introduce his or her self. Jeff, co-chair of the task force, said how impressed he was with the outpouring of community support when the I-405 bridge over NE 116th Street in Kirkland was dedicated to Kiewit Construction Company employee Kollin Neilson who was killed in a work zone by a drunk driver. Jeff explained that this is going to be a busy construction season and he's stressing safety in work zones. Chris Christopher, co-chair, emphasized the importance of following guidelines, never cutting corners and using pre activity safety plans.

### Pedestrian and ADA Requirements in Work Zones

Dave Jones, HQs Construction Office, explained that WSDOT standard specs require a contractor to maintain walk ways during construction. A traffic control plan is required for providing access. Dave suggested that contracts include a General Special Provision (GSP) to provide the means for a contractor to find an alternative to creating an accessible pathway or providing alternative routes. The regions have dealt with pedestrian, bike and ADA challenges: North Central worked with local transit so that WSDOT paid for about 185 passengers a month to safely cross a bridge under construction, the bus ride was free for the users. South Central projects rarely involve pedestrian or ADA requirements but they have had to address bike issues. Southwest has left the details up to the contractor and this has worked so far. Northwest is strict about enforcing ADA requirements, they had an issue recently where a contractor was flagging pedestrians and bikes during regular working hours but had no plan for when a flagger was not present. HQS stressed the importance of getting the ADA requirements into the design plans early on, and to make pedestrian access a separate pedestrian control and safety plan. Pedestrian and ADA requirements are now part of Steve Haapala's design training.

### Work Zone Design Training

Steve Haapala, HQs Traffic Operations Office, has taught ten work zone plan design training classes in the last year to over 200 WSDOT employees, WSDOT consultants and local agency employees (non WSDOT design-build personnel are not eligible for the work zone plan design training per WSDOT's Staff Development's policy). A portion of Steve's course emphasizes pedestrian and bike issues, the sign ballast requirements, speed limit reductions and variable speed limits in work zones, and sharing the newest standards. Steve also teaches the Traffic Control Supervisor classes, he's certified about 75 WSDOT employees so far this year; Evergreen Safety Council, ATSSA and The Northwest Laborers Union currently teach the same TCS curriculum to non WSDOT employees. Steve will teach on demand any time there are 12 or more employees that need training. Facts about the classes are available on the work zone safety website at <http://www.wsdot.wa.gov/Safety/WorkZones/training.htm>

The regions expressed their appreciation for the services Steve is providing, Kirk said these classes are especially beneficial for new employees and for sharing new techniques, Rick sees the emphasis on traffic control plans a positive benefit. Chris C. reminded the regions to give feedback to Steve so he can continue to tailor his classes.

### Temporary Striping

Phil Fordyce gave a PowerPoint presentation on a 3M product, Stamark A780 & A781 removable tape stripe. Northwest Region did a long term study on the use of the Stamark removable tape stripe on I-405. The project was started August of 2008. Twelve months later the stripe showed some wear but the overall visibility was still good even after sanding and snow plowing. After 16 months the visibility was good but one skip stripe was missing. The temporary striping was added to the contract by change order, the cost of the tape was \$1.60 a foot for 6" white and \$2.16 a foot for the 4" yellow (temporary paint is about 20 cents a foot, but the temporary paint stripe may have to be redone, it has to be

removed, and it leaves a ghost stripe which can be a safety issue). The tape in the study was removed by heating it and pulling it up. There was no pavement damage and though there was a bit of adhesive residue it wore away over time. The self adhesive tape left less residue than the tape that used primer. The need is to have as little ghost striping as possible and this temporary striping product fulfills this goal. The contractor was very pleased with the Stamark removable tape stripe. The Qualified Product List (QPL) has some, but not all, of the available temporary pavement marking products. Frank said he is looking at a better way of categorizing products. Chris C. asked where the temporary striping committee is now; Frank said the group has identified four specific temporary pavement marking issues (1. improved temporary pavement marking materials and products, 2. removal of markings, 3. cure time for durable markings, and 4. updating specifications for improved temporary pavement markings and removal). The Traffic Operations Office is drafting a spec change and updating the QPL to address these issues. Chris C. wants the committee to reconvene and present a complete package at the November 2010 WZSTF meeting.

#### Worker Memorial

Chris Christopher said WSDOT has a vision of a new worker memorial at WSDOT HQs that is par with others around the country. The process has turned out to be slower than expected; the Washington State Department of General Administration has to approve the on campus memorial and they originally said that 58 workers dying in work zones is not on the same level as war and law enforcement fallen heroes. If an on campus memorial cannot be created, the next step is to look at a bridge or corridor dedication for fallen workers.

#### Work Zone Safety Awareness Campaign

Alice Fiman, public information officer, said WSDOT is working to remind the public that our workers are exposed to danger every day. Campaigns like "go orange" or having Secretary Paula Hammond wear a hard hat and vest at photo ops help keep worker safety in the public eye. Alice said she is also using the work zone photo enforcement camera and emergency vehicle move over law efforts to emphasize the need for work zone safety.

#### Work Zone Reviews

Marty showed a PowerPoint highlighting the 2009 work zone reviews (a summary has been sent to the regions). Last summer fourteen projects were critiqued, with a minimum of two in each region. The format was changed to allow smaller review groups if the region chose to do so, which in turn allotted more time to be spent looking at and discussing the work zones. The annual review report discusses improvement opportunities (temporary signs, ghost striping, housekeeping), best practices (movable zipper barrier, emergency pullouts when no shoulders, temporary guideposts), region action plans (regions are expected to come up with a plan to implement changes/improvements), HQS action plans (design training, TCS training, guidance and policy) and focus areas (inspection and oversight, pedestrian/ADA accommodations). This year crash data was included in the report as an effort of measuring performance and impacts of work zones on crashes. Overall fatal accidents are down but collisions are up, which may be due to the increased amount of active projects statewide. Marty reminded the regions that WSDOT headquarters expects there to be a designated work zone person in each region as both a contact for headquarters and as a contact for region employees in regard to work zone coordination and issues. Marty said he is always open for suggestions for improvement in the review process. Northwest Region has seen signing and striping improvements due to last year's review, including using reflective numbers and letters instead of electricians tape on advance notice of closure signs. NW has implemented Olympic Region's work zone database which standardizes and assists in coordinating work activities that occur along state highways between construction and maintenance, utility companies, private developers, and local agencies. Kirk said North Central Region implemented the use of the HQs work zone review forms during the first couple weeks of all construction projects and he likes the new format. Chris C. said he would like a process to be developed for each project that is included as part of the annual review each year. He wants the regions to submit a formal response to any action items listed in the report for region/headquarter follow-up; Frank will create an action plan to capture all the action items listed in this year's report and send to Chris C. and Jeff to forward on to Jerry Lenzi.

#### Move Over Law

Mike Dornfeld told the group that Engrossed Senate House Bill 2464 requires drivers in a defined "emergency zone", (which is related to the presence of emergency responders on highways, including incident response crews) to drive the posted speed and in a responsible manner. Penalties are defined for failure to do so, up to one year in county jail, fined up to \$5000 or both, and subject to a 60 day driver's license suspension. The Washington State Patrol, the Washington

Safety Commission and Washington State Department of Transportation are required to conduct an education and outreach effort regarding emergency zones; this translates in to the development of consistent messaging for WSDOT's variable message signs. The bill goes into effect January 1, 2011. Chris C. asked Mike D. to send him an email outlining the status of the move over law.

#### Photo Enforcement

Mike Dornfeld explained that the original pilot photo enforcement project expired June 30, 2009 but was extended to June 30, 2011 by the legislature. In the extended pilot WSP wanted to take a greater role but couldn't come up with a trooper's union agreement. WSDOT, at the legislature's direction, has taken the program back and is now in the process of issuing a new request for proposal (RFP) for a vendor to operate camera and radar equipment to capture motor vehicles exceeding threshold speed. Once a vendor is selected a few potential projects will be identified for deployment of the system. The county and the local court where the deployment occurs will have to agree to have photo enforcement in their area since it impacts the local government. WSP reviews the infractions to assure a violation took place and that the registration information matches the license plate and vehicle seen in the photograph, then electronically approves the infraction and returns it to the vendor for mailing. Infractions are sent to the registered vehicle owner by the vendor. Chris C. asked Mike D. to send him an email outlining the status of the photo enforcement pilot.

#### WZSTF Work Plan

Frank said seven items are being tracked, most could be closed out or put into ongoing status: the work zone review report is ongoing; the automatic traffic cameras are ongoing; the traffic management plans are complete, guidance provided is now being implemented; the request that the Traffic Control Guidelines (M54-44) be simplified is being addressed by working with trainers so this task can be considered closed; the ticket taker procedures issue is an option but most regions are not using it, it will be considered closed; the durable stripe cure time issue will be resolved in the upcoming temporary pavement marking updates; Sono blaster intrusion alarms were tested by multiple region maintenance forces and several local agencies, but did not perform well. Marty reported this to FHWA, this task will be closed. The work plan will be updated and sent to the regions.

#### NCHRP Work Zone Scan Tour

Washington was chosen as one of the states to participate on a national work zone scanning tour, the scan team was made up of representatives from several states and FHWA. WSDOT took part via Webinar. Of special interest to other states was the training Steve Haapala is offering and WSDOT's traffic management plans. Frank feels the real value will be when the scan team produces a report of practices in other states.

#### Work Zone Speed Limit Policy

The policy clarifies the requirements and processes needed to reduce the speed limit in a work zone. The regions thoroughly research each request before it is submitted, which provides for an effective proposal and enables HQs to offer a quicker turn-around time. Each project is handled on a case by case basis within the defined policy. Frank asked the regions to let him know if HQs is giving the regions what they need. Frank feels the improved policy/process gives the regions better expectations and control when setting work zone speed limits.

#### QuickChange Moveable Barrier

The QuickChange Moveable Barrier or QMB (also known as the zipper barrier) is a barrier system for temporary construction installations. The QMB is a continuous segmental barrier made up of short lengths of concrete reactive tension blocks connected together. The barrier can be rapidly moved to a new position to provide a safe environment for road workers and the travelling public. The QMB speeds up construction and traffic management and thereby reduces costs and congestion. WSDOT has 16,000 feet of the barrier, currently residing in NW Region. Since it is not being used often, there needs to be a higher level of awareness so the QMB can be included in more projects. Frank and Phil mentioned that a champion(s) for the barrier may be one way to improve the frequency of use. There is a TEF charge for the vehicle to move the barrier, but there is no longer a charge for the QMB itself. The QMB has significant safety benefits in protecting work zones and workers; Frank developed a status report on the QMB in December 2009 noting that the QMB system is underutilized then he highlighted the current status, implementation issues and

proposed improvement opportunities. Frank will update the usage cost portion of the report and send it to Chris C. and Jeff to forward on to region executive staff.

### Rolling Slowdowns

Rolling slowdowns are generally used as a strategy for infrequent work operations needing a very short closure on multilane highways. Rolling slowdowns are intended for work operations that may be more efficient than lane/shoulder closure operations; they provide a short duration closure without detouring or stopping traffic and are usually done during lowest traffic volume hours. The WSDOT spec book has been revised to emphasize this and the 15 minute duration has been removed; the M54-44 shows a generic plan of how to set up the rolling slowdown. Steve demonstrated the rolling slowdown calculation with an example: a five minute gap on a 60 mph freeway is needed to cross a piece of equipment into the median work area, so a 20 mph slowdown is proposed and using the formula calculation a closure of two miles is needed. South Central Region has used the rolling slow down on I-90 for a short duration closure; Northwest Region has also used the rolling slow down for night work but they feel any operation over 15 minutes requires a lane closure. Steve asked the regions to get back to him with ideas regarding whether there should be a minimum slow down speed, should WSP be involved with the operation, and should rolling slowdowns be used for haul vehicle access vs. lane closures or designed access points.

### Traffic Safety Drum Picker

A South Central Region employee created a drum picker system to save workers backs when they manually pick up and put down barrels every day. The picker consists of an electronic wench, one person hooks the barrel and the device swings the barrel onto the truck to be loaded. This is a link to a video of the system currently being used.



Road Warrior Bridge  
Crew.wmv

### Region Roundtable

Eastern Region – Mike F. said last fall they bought a radar driver feedback sign that displays driver speed, it made such a difference in traffic speeds through a detour that they bought two more.

North Central Region – Kirk said they used a moveable barrier and had good luck with it and will consider using it more. On one project they had a problem with a contracted employee carrying a concealed weapon, a WSDOT employee asked the worker to put the gun back in his vehicle and he did. The region is looking into the legalities of a concealed weapon on a work site.

Southwest Region – Chris T. talked about this being their biggest construction season ever.

Northwest Region – Phil said they were able to set all the girders in one night on a bridge by using 15 minute rolling slowdowns, it took a lot of planning but the project was considered a great success.

South Central Region – Rick and Tom had nothing more to add.

HQs – Jeff asked if everyone thought issues on the agenda were being addressed and acted on. He doesn't want to see topics repeated again and again.

### Identified Tasks from this Meeting

- Chris C. wants the temporary striping committee to reconvene and present a complete package at the November WZSTF meeting.
- Chris wants the regions to submit a formal response to any action items listed in the annual work zone review report for region/headquarter follow-up. Frank will create an action plan to capture all the work zone review tasks and send to Chris C. and Jeff to forward on to Jerry Lenzi.
- Chris C. asked for Mike Dornfeld to send him an email outlining the status of the move over law.
- Chris C. asked for Mike Dornfeld to send him an email outlining the status of the photo enforcement pilot.

- The WZSTF work plan will be updated and sent to the regions.
- Steve asked the regions to get back to him with ideas regarding changes/improvements to the rolling slowdown strategy.
- North Central region is looking into the legalities of a concealed weapon on a contracted employee on a work site.
- Frank will update the usage cost portion of the QuickChange moveable barrier status report and send it to Chris C. and Jeff to forward on to region executive staff.

Next meeting

The next WZSTF videoconference will be November 10, 2010 from 9:00 am to 12:00 pm.